

Comparisons of Job Characteristics

Focus Occupation: [Commercial and Industrial Designers \(27-1021\)](#)

Associated Occupation: [Electrical Engineers \(17-2071\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Commercial and Industrial Designers (27-1021)

Associated Occupation: Electrical Engineers (17-2071)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|--|---------------------------------|--------------------------------|---------------------------|--|
| Engineering and Technology | 5.7 | 22.4 | 18.3 | << Extensive education and/or training may be required |
| Design | 5.2 | 21.5 | 22.2 | 0 Current knowledge level may be sufficient |
| Mathematics | 9.2 | 18.1 | 10.7 | << Extensive education and/or training may be required |
| Computers and Electronics | 8.4 | 17.7 | 13.0 | << Extensive education and/or training may be required |
| Physics | 4.3 | 15.3 | 9.6 | << Extensive education and/or training may be required |
| Mechanical | 6.8 | 12.9 | 15.3 | > Current knowledge level is likely sufficient |
| Telecommunications | 3.9 | 7.2 | 3.4 | << Extensive education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 82

Focus Occupation: Commercial and Industrial Designers (27-1021)

Associated Occupation: Electrical Engineers (17-2071)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|---|---------------------------------|--------------------------------|---------------------------|---|
| Writing | 9.2 | 13.0 | 10.6 | < A higher skill level may be required |
| Complex Problem Solving | 9.1 | 12.5 | 12.0 | 0 Current skill level may be sufficient |
| Mathematics | 6.2 | 10.4 | 8.7 | < A higher skill level may be required |
| Operations Analysis | 5.0 | 9.8 | 12.0 | > Skill level is likely sufficient |
| Systems Evaluation | 6.4 | 9.8 | 9.4 | 0 Current skill level may be sufficient |

| | | | | | |
|-------------------|-----|-----|-----|----|--|
| Science | 4.5 | 9.4 | 6.6 | << | Extensive development of skills in this area may be required |
| Troubleshooting | 4.5 | 8.8 | 2.6 | << | Extensive development of skills in this area may be required |
| Technology Design | 2.6 | 5.1 | 9.5 | >> | Skill level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 92 | | | |
|--|---------------------------------|---|---------------------------|--------------------------------|--|
| Focus Occupation: Commercial and Industrial Designers (27-1021) Associated Occupation: Electrical Engineers (17-2071) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Written Comprehension | 11.0 | 14.8 | 12.3 | < | Some improvement in abilities may be required |
| Problem Sensitivity | 11.1 | 14.0 | 12.2 | < | Some improvement in abilities may be required |
| Deductive Reasoning | 10.6 | 13.9 | 14.1 | 0 | Current ability level may be sufficient |
| Written Expression | 9.8 | 13.8 | 10.8 | << | Extensive improvement in abilities may be required |
| Inductive Reasoning | 10.2 | 13.5 | 11.7 | < | Some improvement in abilities may be required |
| Information Ordering | 9.9 | 12.3 | 11.9 | 0 | Current ability level may be sufficient |
| Category Flexibility | 9.0 | 11.4 | 11.5 | 0 | Current ability level may be sufficient |
| Mathematical Reasoning | 6.3 | 10.4 | 9.6 | 0 | Current ability level may be sufficient |
| Number Facility | 6.3 | 10.1 | 7.0 | << | Extensive improvement in abilities may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 71 |
|--|-------------------------|---|
| Focus Occupation: Commercial and Industrial Designers (27-1021) Associated Occupation: Electrical Engineers (17-2071) | | |
| Work Activities | Exclusivity of Activity | |
| Analyze project proposal to determine feasibility, cost, or time | 69 | |
| Analyze technical data, designs, or preliminary specifications | 47 | |
| Draw prototypes, plans, or maps to scale | 57 | |
| Evaluate product design | 78 | |
| Follow manufacturing methods or techniques | 73 | |
| Read blueprints | 10 | |
| Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks | 58 | |
| Use computer graphics design software | 70 | |

| | |
|---|----|
| Use computers to enter, access or retrieve data | 3 |
| Use drafting or mechanical drawing techniques | 50 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 66

Focus Occupation: Commercial and Industrial Designers (27-1021)

Associated Occupation: Electrical Engineers (17-2071)

| Tools and Technologies | Exclusivity |
|--|-------------|
| Business function specific software | 1 |
| Cameras | 2 |
| Computers | 1 |
| Content authoring and editing software | 1 |
| Industry specific software | 1 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.